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ABSTRACT

A study was conducted at Miami-Dade Community College (M-DCC) to assess the academic performance of students who participated in remedial course work during their first term of enrollment, and to determine the participation rate of remedial-eligible students. The fall 1980 administration of a basic skills test battery found 2,968 of 6,726 first-time-in-college students eligible for remedial reading, 2,770 eligible for remedial writing, and 2,933 eligible for remedial math. More than half of the remedial-eligible students did not take remedial coursework, with the lowest participation rates in math courses and the highest in reading courses. The retention and graduation rates of those students who did not take remedial courses were as high or higher than those of students who did take remedial courses. At one campus, students' chances of graduating or still being enrolled 3 years after their initial enrollment were markedly improved by not taking a remedial course during their first term. Due to a phase-in policy of mandatory compliance with remedial placement, there was an anticipated and consistent increase between 1980 and 1982 in the percentage of eligible students taking remedial courses during their first term. Based on retention and graduation data, advisors should be alerted that a student's deliberate decision not to enroll in remedial work during his/her first term may be a beneficial and appropriate choice. (HB)

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EFFECTS OF STUDENT SELF SELECTION INTO REMEDIAL CLASSES

Research Report No. 83-39

December 1983

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OFFICE OF INSITUTIONAL RESEARCH

JC 840 052

Effects of Student Self Selection into Remedial Classes

One of the assumptions related to the requirements for remedial academic work is that students will perform better academically with remediation. To test this pedagogic assumption directly is an extremely difficult process, not because a conceptual framework is particularly abstruse but because the implementation in a practical setting is far from ideal. Nonetheless, the issues can still be addressed as well as possible given the limitations of the design.

Beginning with the Fall Term 1980, students at Miami-Dade were required to write a Basic Skills Assessment Battery and to be placed in remedial courses in reading, writing, and computation if their scores were sufficiently low. The reinstatement of placement testing at Miami-Dade was implemented on a phase-in basis, and because of space limitations as well as instructor availability, it was not expected that all students would be affected. It was assumed that in the ensuing years the policies would be implemented in a more comprehensive fashion as computer locks were installed. As a second issue, the data in this report addressed the question of the extent to which there has been an increase in the number of students who are eligible for remedial work who did take remedial work during their first term of enrollment.

The base population for this study consisted of all first-time-in-college students who were eligible for remedial work based on Basic Skills Assessment Tests, specifically the Comparative Guidance and Placement program for the Fall Term 1980-81. It was necessary to use 1980-81 since the students

have now had three years to graduate. The measure of success was considered to be a combination of continued enrollment at Miami-Dade or graduation. Therefore, attrition is conversely defined as those not still enrolled or graduated as of September, 1983.

For those students who entered during the Fall Term 1980 and were eligible for remedial work, the data are separated on the basis of their performance on the Reading, Written English Expression, and Computation sub-tests of the CGP. Tables 1-5 are organized by performance under each of the sub-tests.

It is clear that in each instance, (i.e., for the Reading, the Written English Expression, and the Computation test) of all the students eligible to take remedial coursework, more than half did not take remedial work during the first term of enrollment. The lowest proportion of first term remedial course enrollment occurred for students below the placement score on the Computation test, while the highest enrollment occurred for students below the placement score on the Reading test. This may be surprising to many readers who are aware that the placement criteria did not specify the requirement for reading until the Fall Term 1983. Nonetheless, the language and the implementation was sufficiently clear so that students were inclined to enroll for remedial work. It is possible, of course, that it is more self evident to students that accomplishment in reading is fundamental to their progress in other coursework so that they may be more inclined to seek help through remedial work by taking remedial reading courses.

There is considerable variation in the pattern of enrollment in the remedial courses by campus. For example of the 1,165 students eligible for remedial reading on South Campus, 842 did not take remedial reading their

first term. In contrast, on North Campus of the 1,334 students eligible for remedial reading, 895 did take the course their first term. When examining the measures of success (Tables 1-10), the clear pattern that emerges is that if the students did not take remedial work during the first term, their retention rate is equal to or greater than the graduation and retention rate for the students who did take remedial courses during the first term. This is true across each sub-test for the total college and by each campus. At Medical Center Campus the students' chances of graduating or still being enrolled three years later were markedly improved by not taking a remedial course during the first term.

It is difficult to escape the impression that taking a remedial course for which one is eligible during the first term increases the probability of non-success; certainly the taking of a remedial course does not improve the students' chances for retention. It is important to remember when interpreting the data that many of the students who did not take remedial courses during the first term were those who for a variety of motivational reasons which are indeterminate at this time chose not to enroll. This type of voluntary selection tends often to bias the population so that frequently those who opt out of remedial courses are a different group. The best research design of course is to randomly select and to randomly place like groups of students into remedial and non-remedial efforts and to track their performance over time. Very few studies in the literature have been this rigorous in design, resulting in a limited number of truly experimental designs on the topic of the efficacy of remedial efforts. For an excellent and recent review on this topic see: Chen-Lin C. Kulik, James Kulik & Barbara Shwalb, "College Programs for High-risk and Disadvantaged Students: A Meta-Analysis fo Findings," Review of Educational Research, Fall, 1983.

Of major practical significance for advisement and counseling purposes is the implication that for many students, a deliberate decision not to enroll in remedial work during first term enrollment may be a beneficial decision. At the least, advisors should be alerted that a decision reached by advisor/student deliberations to not enroll in remedial work during the first term, even if the student is eligible on the basis of test scores, may be the most appropriate educational decision for some students.

Tables 11 and 12 reflect the changes over time in the percentage of students eligible for remedial coursework who enroll for remedial courses during their first term. As should be expected, based on the phase-in policy regarding compliance, there has been a consistent increase in the percentage of eligible students taking remedial courses during the first term. There is still considerable variation by campus as summarized in Table 13. Still, as of the Fall Term 1982, college-wide only 52% of those eligible to take only one course took even that one remedial course during their first term; of those eligible for two remedial courses, 40% took two and of those eligible for 3, 34% took all three. These summary tables will be generated each year so as to provide continuing and updated information regarding the issues addressed in this paper.

Table 1

College-Wide

Three Year Differential Attrition/Graduation With and Without First Term Remedial Coursework by Test

First-time-in-College Students, Fall Term 1980-81

Reading Test

	Eligible for Remedial (N=2968)		Not Eligible for Remedial (N=3758)	
	Took Remedial First Term (N=1443)	Did Not Take Remedial First Term (N=1525)	Took Remedial First Term (N=128)	Did Not Take Remedial First Term (N=3630)
Graduated	13%	19%	23%	30%
Still Enrolled	18%	19%	18%	18%
Attrition	69%	62%	59%	52%

Written English Expression Test

	Eligible for Remedial (N=2770)		Not Eligible for Remedial (N=3956)	
	Took Remedial First Term (N=1236)	Did Not Take Remedial First Term (N=1534)	Took Remedial First Term (N=78)	Did Not Take Remedial First Term (N=3878
Graduated	15%	17%	21%	29%
Still Enrolled	19%	19%	27%	18%
Attrition	66%	64%	52%	53%

Computation Test

	Eligible for Remedial (N=2933)		Not Eligible for Remedial (N=3793)	
	Took Remedial First Term (N=1076)	Did Not Take Remedial First Term (N=1857)	Took Remedial First Term (N=294)	Did Not Take Remedial First Term (N=3499)
Graduated	13%	15%	21%	32%
Still Enrolled	16%	18%	22%	19%
Attrition	72%	67%	57%	49%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 2

North Campus

Three Year Differential Attrition/Graduation
With and Without First Term Remedial Coursework
by Test
First-time-in College Students, Fall Term 1980-81

Reading Test

	Eligible for Remedial (N=1334)		Not Eligible for Remedial (N=1204)	
	Took Remedial First Term (N=895)	Did Not Take Remedial First Term (N=439)	Took Remedial First Term (N=110)	Did Not Take Remedial First Term (N=1094)
Graduated	12%	17%	23%	29%
Still Enrolled	18%	14%	18%	16%
Attrition	70%	69%	59%	55%

Written English Expression Test

	Eligible for Remedial (N=1198)		Not Eligible for Remedial (N=1340)	
	Took Remedial First Term (N=682)	Did Not Take Remedial First Term (N=516)	Took Remedial First Term (N=30)	Did Not Take Remedial First Term (N=1310)
Graduated	14%	14%	10%	26%
Still Enrolled	18%	15%	20%	17%
Attrition	68%	71%	70%	57%

Computation Test

	Eligible for Remedial (N=1279)		Not Eligible for Remedial (N=1259)	
	Took Remedial First Term (N=700)	Did Not Take Remedial First Term (N=579)	Took Remedial First Term (N=218)	Did Not Take Remedial First Term (N=1041)
Graduated	12%	12%	24%	30%
Still Enrolled	15%	17%	23%	16%
Attrition	73%	71%	53%	54%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 3

South Campus

Three Year Differential Attrition/Graduation
With and Without First Term Remedial Coursework
by Test
First-time-in College Students, Fall Term 1980-81

Reading Test

	Eligible for Remedial (N=1165)		Not Eligible for Remedial (N=2249)	
	Took Remedial First Term (N=323)	Did Not Take Remedial First Term (N=842)	Took Remedial First Term (N=16)	Did Not Take Remedial First Term (N=2233)
Graduated	17%	21%	25%	30%
Still Enrolled	20%	22%	19%	18%
Attrition	63%	57%	56%	52%

Written English Expression Test

	Eligible for Remedial (N=1118)		Not Eligible for Remedial (N=2296)	
	Took Remedial First Term (N=252)	Did Not Take Remedial First Term (N=866)	Took Remedial First Term (N=37)	Did Not Take Remedial First Term (N=2259)
Graduated	19%	19%	30%	30%
Still Enrolled	22%	22%	27%	18%
Attrition	59%	59%	43%	52%

Computation Test

	Eligible for Remedial (N=1204)		Not Eligible for Remedial (N=2210)	
	Took Remedial First Term (N=182)	Did Not Take Remedial First Term (N=1022)	Took Remedial First Term (N=33)	Did Not Take Remedial First Term (N=2177)
Graduated	14%	16%	3%	33%
Still Enrolled	19%	20%	27%	19%
Attrition	67%	64%	70%	48%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM).

Prepared by: Office of Institutional Research

Table 4

New World Center Campus

Three Year Differential Attrition/Graduation
With and Without First Term Remedial Coursework
by Test
First-time-in College Students, Fall Term 1980-81

Reading Test

	Eligible for Remedial (N=367)		Not Eligible for Remedial (N=230)	
	Took Remedial First Term (N=167)	Did Not Take Remedial First Term (N=200)	Took Remedial First Term (N=1)	Did Not Take Remedial First Term (N=229)
Graduated	14%	19%	-	25%
Still Enrolled	14%	16%	-	22%
Attrition	72%	65%	100%	53%

Written English Expression Test

	Eligible for Remedial (N=358)		Not Eligible for Remedial (N=239)	
	Took Remedial First Term (N=243)	Did Not Take Remedial First Term (N=115)	Took Remedial First Term (N=8)	Did Not Take Remedial First Term (N=231)
Graduated	14%	16%	25%	28%
Still Enrolled	16%	14%	63%	19%
Attrition	70%	70%	12%	53%

Computation Test

	Eligible for Remedial (N=337)		Not Eligible for Remedial (N=260)	
	Took Remedial First Term (N=138)	Did Not Take Remedial First Term (N=199)	Took Remedial First Term (N=31)	Did Not Take Remedial First Term (N=229)
Graduated	10%	17%	16%	29%
Still Enrolled	13%	15%	16%	23%
Attrition	77%	68%	68%	48%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM)

Prepared by: Office of Institutional Research, October 1983.

Table 5

Medical Center Campus

Three Year Differential Attrition/Graduation
With and Without First Term Remedial Coursework
by Test
First-time-in College Students, Fall Term 1980-81

Reading Test

	Eligible for Remedial (N=102)		Not Eligible for Remedial (N=75)	
	Took Remedial First Term (N=58)	Did Not Take Remedial First Term (N=44)	Took Remedial First Term (N=1)	Did Not Take Remedial First Term (N=74)
Graduated	12%	25%	-	36%
Still Enrolled	21%	23%	-	26%
Attrition	67%	52%	100%	38%

Written English Expression Test

	Eligible for Remedial (N=96)		Not Eligible for Remedial (N=81)	
	Took Remedial First Term (N=59)	Did Not Take Remedial First Term (N=37)	Took Remedial First Term (N=3)	Did Not Take Remedial First Term (N=78)
Graduated	12%	35%	-	32%
Still Enrolled	29%	16%	-	23%
Attrition	59%	49%	100%	45%

Computation Test

	Eligible for Remedial (N=113)		Not Eligible for Remedial (N=64)	
	Took Remedial First Term (N=56)	Did Not Take Remedial First Term (N=57)	Took Remedial First Term (N=12)	Did Not Take Remedial First Term (N=52)
Graduated	11%	24%	25%	42%
Still Enrolled	30%	23%	25%	16%
Attrition	59%	53%	50%	42%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM)

Prepared by: Office of Institutional Research, October 1983.

Table 6

College-Wide

Three Year Differential Attrition/Graduation
by Number of Eligible Remedial Courses Taken First Term
First-time-in-College Students, Fall Term 1980-81

Number of Remedial Courses Eligible for	Number of Eligible Courses Taken First Term			
	Three	Two	One	None
Three (N=1462)	(N=403)	(N=306)	(N=295)	(N=458)
Graduated	9%	7%	10%	11%
Still Enrolled	15%	17%	16%	20%
Attrition	76%	76%	74%	69%
Two (N=1342)		(N=317)	(N=291)	(N=574)
Graduated	-	20%	17%	22%
Still Enrolled	-	22%	19%	19%
Attrition	-	58%	64%	59%
One (N=1601)			(N=371)	(N=1062)
Graduated	-	-	22%	26%
Still Enrolled	-	-	18%	18%
Attrition	-	-	60%	56%
None (N=2321)				(N=2191)
Graduates	-	-	-	34%
Still Enrolled	-	-	-	18%
Attrition	-	-	-	48%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 7

North Campus

Three Year Differential Attrition/Graduation
by Number of Eligible Remedial Courses Taken First Term
First-time-in-College Students, Fall Term 1980-81

Number of Remedial Courses Eligible for	Number of Eligible Courses Taken First Term			
	Three	Two	One	None
Three (N=721)	(N=274)	(N=188)	(N=124)	(N=135)
Graduated	8.4%	6.9%	4.8%	13.3%
Still Enrolled	15.0%	18.6%	8.9%	17.8%
Attrition	76.6%	74.5%	86.3%	68.9%
Two (N=539)		(N=196)	(N=111)	(N=123)
Graduated	-	18.4%	14.4%	19.5%
Still Enrolled	-	20.9%	13.5%	11.4%
Attrition	-	60.7%	72.1%	69.1%
One (N=570)			(N=196)	(N=261)
Graduated	-	-	16.3%	23.0%
Still Enrolled	-	-	17.9%	17.6%
Attrition	-	-	65.8%	59.4%
None (N=708)				(N=607)
Graduated	-	-	-	35.4%
Still Enrolled	-	-	-	14.7%
Attrition	-	-	-	49.9%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 8

South Campus

Three Year Differential Attrition/Graduation
by Number of Eligible Remedial Courses Taken First Term
First-time-in-College Students, Fall Term 1980-81

Number of Remedial Courses Eligible for	Number of Eligible Courses Taken First Term			
	Three	Two	One	None
Three (N=458)	(N=24)	(N=69)	(N-119)	(N=246)
Graduated	12.5%	5.8%	11.8%	10.6%
Still Enrolled	16.7%	17.4%	22.7%	22.4%
Attrition	70.8%	76.8%	65.5%	67.0%
Two (N=629)		(N=65)	(N-139)	(N=400)
Graduated	-	21.5%	18.7%	21.5%
Still Enrolled	-	27.7%	22.3%	22.0%
Attrition	-	50.8%	59.0%	56.5%
One (N=855)			(N=120)	(N=699)
Graduated	-	-	29.2%	26.3%
Still Enrolled	-	-	13.3%	18.2%
Attrition	-	-	57.5%	55.5%
None (N=1472)				(N=1453)
Graduated	-	-	-	34.1%
Still Enrolled	-	-	-	18.5%
Attrition	-	-	-	47.4%

Data Source: BSA Validity Study File With enrollment and graduation data added (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 9

New World Center Campus

Three Year Differential Attrition/Graduation
by Number of Eligible Remedial Courses Taken First Term
First-time-in-College Students, Fall Term 1980-81

Number of Remedial Courses Eligible for	Number of Eligible Courses Taken First Term			
	Three	Two	One	None
Three (N=221)	(N=75)	(N=42)	(N=42)	(N=62)
Graduated	8.0%	9.5%	16.7%	8.1%
Still Enrolled	12.0%	9.5%	16.7%	12.9%
Attrition	80.0%	81.0%	66.6%	79.0%
Two (N=132)		(N=45)	(N=29)	(N=39)
Graduated	-	22.2%	20.7%	28.2%
Still Enrolled	-	17.8%	17.2%	12.8%
Attrition	-	60.0%	62.1%	59.0%
One (N=135)			(N=45)	(N=77)
Graduated	-	-	26.7%	31.2%
Still Enrolled	-	-	26.7%	19.5%
Attrition	-	-	46.6%	49.3%
None (N=109)				(N=101)
Graduated	-	-	-	26.7%
Still Enrolled	-	-	-	21.8%
Attrition	-	-	-	51.5%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 10

Medical Center Campus

Three Year Differential Attrition/Graduation
by Number of Eligibile Remedial Courses Taken First Term
First-time-in-College Students, Fall Term 1980-81

Number of Remedial Courses Eligible for	Number of Eligible Courses Taken First Term			
	Three	Two	One	None
Three (N=62)	(N=30)	(N=7)	(N=10)	(N=15)
Graduated	10.0%	-	20.0%	20.0%
Still Enrolled	23.3%	28.6%	30.0%	20.0%
Attrition	66.7%	71.4%	50.0%	60.0%
Two (N=42)		(N=11)	(N=12)	(N=12)
Graduated	-	18.2%	8.3%	58.3%
Still Enrolled	-	27.3%	25.0%	16.7%
Attrition	-	54.5%	66.7%	25.0%
One (N=41)			(N=10.0)	(N=25)
Graduated	-	-	10.0%	40.0%
Still Enrolled	-	-	40.0%	20.0%
Attrition	-	-	50.0%	40.0%
None (N=32)				(N=30)
Graduated	-	-	-	43.3%
Still Enrolled	-	-	-	20.0%
Attrition	-	-	-	36.7%

Data Source: BSA Validity Study File with enrollment and graduation data added (CM)

Prepared by: Office of Institutional Research, October 1983.

Table 11

College-Wide

Tested Students Eligible for and Who Took
at Least One Remedial Course Their First Term
First-time-in College Students, Fall Terms

Number of Remedial Areas Eligible for	Number in Category	Number Who Took at Least One Course First Term	Percent of Category
Three			
1980	1,462	1,004	69
1981	1,528	1,070	70
1982	1,428	1,148	80
Two			
1980	1,342	768	57
1981	1,323	881	67
1982	1,352	1,013	75
One			
1980	1,601	539	34
1981	1,544	656	42
1982	1,523	835	55
None			
1980	2,321	130	6
1981	2,128	40	2
1982	2,020	19	1
Total Eligible			
1980	4,405	2,311	52
1981	4,395	2,607	59
1982	4,303	2,996	70

Data Source: BSA Validity Stuides Files (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 12

College-Wide

Tested Students Eligible for Remedial and Number of Eligible Courses Taken First Term
First-time-in College Students, Fall Terms

Number of Remedial Courses Eligible for	Number of Eligible Courses Taken First Term							
	Three		Two		One		None	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Three								
1980 (N=1462)	403	28	306	21	295	20	458	31
1981 (N=1528)	306	20	392	26	372	24	458	30
1982 (N=1428)	487	34	407	28	254	18	280	20
Two								
1980 (N=1342)	-	-	317	24	291	22	574	43
1981 (N=1323)	-	-	387	29	432	33	442	33
1982 (N=1352)	-	-	536	40	434	32	339	25
One								
1980 (N=1601)	-	-	-	-	371	23	1062	66
1981 (N=1544)	-	-	-	-	589	38	888	58
1982 (N=1523)	-	-	-	-	793	52	688	45

Data Source: BSA Validity Studies Files (CM).

Prepared by: Office of Institutional Research, October 1983.

Table 13

Tested Students Eligible for Remedial Coursework
and Number Who Took Eligible Course
First Term by Test by Campus
First-time-in College Students, Fall Terms

Fall Term	Remedial Area: Reading Test — Eligible for Remedial	Reading Test — Took Remedial First Term	Reading Test — Percent of Eligible	Writing Test — Eligible for Remedial	Writing Test — Took Remedial First Term	Writing Test — Percent of Eligible	Computation Test — Eligible for Remedial	Computation Test — Took Remedial First Term	Computation Test — Percent of Eligible
College-Wide									
1980	2,968	1,443	48.6	2,770	1,236	44.6	2,933	1,076	36.7
1981	3,059	1,585	51.8	2,770	1,420	51.3	2,945	977	33.2
1982	3,017	1,597	52.9	2,687	1,709	63.6	2,807	1,605	57.2
North Campus									
1980	1,334	895	67.1	1,198	682	56.9	1,279	700	54.7
1981	1,336	692	51.8	1,191	458	38.5	1,249	315	25.2
1982	1,237	776	62.7	1,073	600	55.9	1,063	539	58.7
South Campus									
1980	1,165	323	27.7	1,118	252	22.5	1,204	182	15.1
1981	1,307	667	51.0	1,207	711	58.9	1,309	469	35.8
1982	1,296	537	41.4	1,173	818	69.7	1,277	786	61.6
New World Center Campus									
1980	367	167	45.5	358	243	67.9	337	138	40.9
1981	308	156	50.6	264	166	62.9	283	139	49.1
1982	353	186	52.7	319	198	62.1	347	196	56.5
Medical Center Campus									
1980	102	58	56.8	96	59	61.5	113	56	49.6
1981	108	70	64.8	108	85	78.7	104	54	50.0
1982	131	98	74.8	122	93	76.2	120	84	70.0

Data Source: BSA Validity Studies Files (CM).

Prepared by: Office of Institutional Research

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